

**PENNSYLVANIA
PUBLIC UTILITY COMMISSION
Harrisburg, PA 17105-3265**

Public Meeting held June 13, 2019

Commissioners Present:

Gladys Brown Dutrieuille, Chairman
David W. Sweet, Vice Chairman
Norman J. Kennard
Andrew G. Place
John F. Coleman, Jr.

Advance Notice of Proposed Rulemaking
Regarding Hazardous Liquid Public Utility Safety
Standards at 52 Pa. Code Chapter 59

L-2019-3010267

ADVANCE NOTICE OF PROPOSED RULEMAKING ORDER

BY THE COMMISSION:

At present, Chapter 59 of the Public Utility Commission's (Commission) regulations is titled "Gas Service" with its primary focus on the regulation of natural gas distribution service, safety and facilities. See 52 Pa. Code Ch. 59. The Commission seeks comments from interested persons regarding the amendment and enhancement of Chapter 59 to enable the Commission to more comprehensively regulate public utilities which transport petroleum products and other hazardous liquids in intrastate commerce.

BACKGROUND

Under Section 501(b) of the Public Utility Code, the Commission has the general administrative power and authority to supervise and regulate all public utilities doing business within the Commonwealth and to make such regulations as may be necessary or proper in the exercise of its powers or for the performance of its duties. 66 Pa.C.S. § 501(b). Section 102, in pertinent part, defines a public utility as:

- (1) Any person or corporations now or hereafter owning or operating in this Commonwealth equipment or facilities for:

. . .

- (v) Transporting or conveying natural or artificial gas, crude oil, gasoline, or petroleum products, materials for refrigeration, or oxygen or nitrogen, or other fluid substance, by pipeline or conduit, for the public for compensation.

66 Pa.C.S § 102, definition of public utility (1)(v). Accordingly, the Commission has jurisdiction over and authority to regulate, *inter alia*, petroleum products transported via pipeline or conduit for the public for compensation. 66 Pa.C.S. §§ 501(b), 102(1)(v). See also 66 Pa.C.S. § 506 (inspection of facilities and records). The term “petroleum products” includes refined petroleum products such as fuel oil and diesel as well as natural gas liquids such as ethane, benzene and propane. *See e.g., Petition of Granger Energy of Honey Brook, LLC*, Docket No. P-00032043 (Order entered August 19, 2004) (“petroleum products” as used in Section 102 of the Code, has a broad meaning as a “catch all phrase” to include what would otherwise be an exhaustive list of products); *see also* 49 C.F.R. § 195.2 (defining a petroleum product as “flammable, toxic, or corrosive products obtained from distilling and processing of crude oil, unfinished oils, natural gas liquids, blend stocks and other miscellaneous hydrocarbon compounds”).

Consistent with that authority, effective September 22, 2012, the Commission amended its regulations in Chapter 59 to regulate the safety of petroleum products pipelines by incorporating the federal pipeline safety laws at 49 CFR Part 195, relating to Transportation of Hazardous Liquids by Pipeline. *See 42 Pa.B. 5967; Rulemaking Re Liquid Fuels Pipeline Regulations*, Docket No. L-2008-2034622 (Order entered March 1, 2012).

The Commission participates in the pipeline safety program administered by the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration (PHMSA) and is certified under 49 U.S.C. § 60105(a).¹ The Commission

¹ See Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, *Appendix F – State Program Certification/Agreement Status* (Dec. 2016) available at <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/about-phmsa/working-phmsa/state->

incorporated 49 CFR Part 195 in its regulations, in part, to comport with the requirements of PHMSA's pipeline safety program. Participating states must adopt the minimum Federal pipeline safety standards, although they may pass more stringent regulations. As explained in Appendix A to Part 195:

For the remainder of pipeline facilities, denominated "intrastate pipeline facilities," the [Hazardous Liquids Pipeline Safety Act] provides that the same Federal regulation and enforcement will apply unless a State certifies that it will assume those responsibilities. A certified State must adopt the same minimal standards but may adopt additional more stringent standards so long as they are compatible.

49 CFR Part 195, *Appendix A to Part 195 – Delineation Between Federal and State Jurisdiction – Statement of Agency Policy and Interpretation*. As such, the Commission may adopt standards beyond the minimum federal pipeline safety standards.

Part 195 prescribes safety standards and reporting requirements for pipeline facilities used in the transportation of hazardous liquids. 49 CFR § 195.0 (Scope). Under Part 195, hazardous liquids include "petroleum, petroleum products, anhydrous ammonia, or ethanol." 49 CFR § 195.2. In sequence, Part 195 addresses the following: General; Annual, Accident, and Safety-Related Condition Reporting; Design Requirements; Construction; Pressure Testing; Operation and Maintenance; Qualification of Pipeline Personnel; and Corrosion Control. *See* 49 CFR Subparts A-H.

At present, Section 59.33 of the Commission's regulations, incorporating Part 195, provides in relevant part, as follows:

(b) *Safety code.* The minimum safety standards for all natural gas and hazardous liquid public utilities in the Commonwealth shall be those included under the pipeline safety laws as found in 49 U.S.C.A. §§ 60101–60503 and as implemented at 49 CFR Parts 191–193, 195 and 199, including all subsequent amendments thereto. Future Federal

amendments to 49 CFR Parts 191–193, 195 and 199, as amended or modified by the Federal government, shall have the effect of amending or modifying the Commission’s regulations with regard to the minimum safety standards for all natural gas and hazardous liquid public utilities. The amendment or modification shall take effect 60 days after the effective date of the Federal amendment or modification, unless the Commission publishes a notice in the *Pennsylvania Bulletin* stating that the amendment or modification may not take effect.

(c) *Definition.* For the purposes of this section, “hazardous liquid public utility” means a person or corporation now or hereafter owning or operating in this Commonwealth equipment or facilities for transporting or conveying crude oil, gasoline, petroleum or petroleum products by pipeline or conduit, for the public for compensation.

52 Pa. Code §§ 59.33(b)-(c). The purpose of this Advance Notice of Proposed Rulemaking Order is for the Commission to seek comments from hazardous liquids public utilities and the public on amendments and enhancements to Chapter 59 to more comprehensively regulate the design, construction, operations and maintenance of public utilities transporting petroleum products and other hazardous liquids under the jurisdiction of the Commission.

DISCUSSION

I. Introduction

By describing certain subject areas for potential regulations later in this Order, the Commission does not intend to limit the scope of comments to these subject areas. We intend that the identified subject areas be used as starting points for detailed comments. While we encourage comments on any and all topics, we must note that the General Assembly enacted the Public Utility Code (Code) as the touchstone for the Commission's regulation of public utilities. The Commission's promulgation of regulations must also comply with the Commonwealth Documents Law, the Commonwealth Attorneys' Act and the Regulatory Review Act. Lastly, in light of the federal standards at 49 CFR Part 195, commenters must be mindful of the federal requirement for compatibility between PHMSA's regulations and any regulations the Commission may promulgate.

In addition, in enacting the Code, the General Assembly made certain legislative decisions that cannot be changed by a Commission regulation. For example, the Code's definition of public utility as "[a]ny person or corporation now or hereafter owning or operating in this Commonwealth equipment or facilities for ... [t]ransporting or conveying natural or artificial gas, crude oil, gasoline, or petroleum products, materials for refrigeration, or oxygen or nitrogen, or other fluid substance, by pipeline or conduit, for the public for compensation" is binding upon the Commission. Similarly, the General Assembly granted the power of eminent domain to certain public utility corporations. *See* 15 Pa.C.S. §§ 1103, 1511. The General Assembly also restricted the Commission's role in eminent domain matters. *See* 15 Pa.C.S. § 1511(c) (requiring Commission preapproval of a public utility's exercise of eminent domain for certain aerial line

construction). Commentators are forewarned that the Commission will not promulgate regulations inconsistent with these, and other, legislative requirements.²

With these guiding principles set forth, we will now address some of the subject areas where we believe additional regulations would be in the public interest.

II. Subject Areas

A. Construction

Below, the Commission provides an overview of the present minimum construction and design standards and seeks comment specifically on the areas of pipeline material and specification, cover over buried pipelines, underground clearances, and valves. We again note that comments are not limited to these areas. Interested parties may comment on other provisions of Part 195 relating to the construction and design of hazardous liquid public utilities that they believe the Commission should consider building upon through this rulemaking.

1. Pipeline Material and Specification

Section 195.8 provides that hazardous liquids must be transported in pipelines constructed with steel pipe. Specifically, Section 195.8 states, “No person may transport any hazardous liquid...through a pipe that is constructed after October 1, 1970...of material other than steel.”³ 49 CFR § 195.8. Requirements as to the appropriate external coatings for steel pipelines are discussed below. *See infra*, Section II.B.8.

Any new pipe installed in a pipeline system must “be made of steel of the carbon, low alloy-high strength, or alloy type that is able to withstand the internal pressures and

² For example, the Commission is required to comply with the Public Utility Confidential Security Information Disclosure Protection Act, Act 156 of 2006 (Act 156). The Commission and Commission staff are required to maintain confidential infrastructure information and are prohibited from releasing such information.

³ An exception exists where the person has notified PHMSA of the following in writing at least 90 days before transportation is to begin: (1) whether a hazardous liquid...will be transported, (2) the chemical name, common name, properties, and characteristics of the hazardous liquid, and (3) the material used to construct the pipeline. 49 CFR § 195.8. If PHMSA determines that transportation in the proposed manner would be unduly hazardous, however, it will order the person not to do so until further notice. 49 CFR § 195.8.

external loads and pressures anticipated for the pipeline system.” 49 CFR § 195.112(a). In addition, the pipe must be made according to “a written pipe specification that sets forth the chemical requirements for the pipe steel and mechanical tests for the pipe to provide pipe suitable for the use intended.” 49 CFR § 195.112(a).

When used pipe is installed in a pipeline system, the specification of the pipe must be known. 49 CFR § 195.114(a). In addition, the seam joint factor and the minimum yield strength or thickness must be determined in accordance with the relevant provisions of Section 195.106, relating to internal design pressure. 49 CFR § 195.114(a); *see* 49 CFR §§ 195.106(b)-(c), (e). Moreover, there may not be any buckles, cracks, grooves, gouges, dents, or other surface defects that exceed the maximum depth allowed by the specification to which the pipe was manufactured and corroded areas with remaining wall thickness less than the minimum required by the specification to which the pipe was manufactured. 49 CFR §§ 195.114(b)(1)-(3). If the pipe does not meet these requirements, it may still be used provided that the operating pressure is reduced according to the remaining wall thickness. 49 CFR § 195.114. Additional requirements regarding operating pressure are discussed below. *See infra*, Section II.B.3.

The Commission seeks comment regarding the treatment of hazardous liquid public utility pipelines constructed with materials other than coated steel, including bare steel and vintage materials. The Commission also seeks comment regarding the material and specification requirements for the installation of new pipe and used pipe, including reductions in operating pressures for used pipe. *See infra*, Section II.B.3.

2. Cover Over Buried Pipelines

Section 195.248 requires all pipe to be buried so that it is below the level of cultivation. 49 CFR § 195.248. For normal excavation, there must be at least: 36 inches in industrial, commercial, and residential areas; 48 inches in inland bodies of water with a width of at least 100 feet; 36 inches of cover in drainage ditches at public roads and railroads; 48 inches in deepwater port safety zones; 36 inches in offshore areas under

water less than 12 feet deep; and 30 inches in any other area. 49 CFR § 195.248(a). For rock excavation, meaning any excavation that requires blasting or removal by equivalent means, there must be at least: 30 inches in industrial, commercial, and residential areas; 18 inches in inland bodies of water with a width of at least 100 feet; 36 inches of cover in drainage ditches at public roads and railroads; 24 inches in deepwater port safety zones; 18 inches in offshore areas under water less than 12 feet deep; and 18 inches in any other area. 49 CFR § 195.428(a).

The Commission seeks comment regarding the appropriate amount of cover for hazardous liquid public utility pipelines, including whether additional cover should be required at installation and how cover is to be maintained.

3. Underground Clearances

Section 195.250 provides that pipe installed underground must have at least a 12-inch clearance between the outside of the pipe and the extremity of any other underground structure. 49 CFR § 195.250. Where a 12-inch clearance is impracticable, the clearance may be reduced provided that adequate provisions are made for corrosion control. 49 CFR § 195.250.

The Commission seeks comment regarding the proper minimum amount of clearance between hazardous liquid public utility pipelines and underground structures, including other pipelines. Interested parties should also address pipeline stacking and the number of pipelines that may reasonably be stacked.

4. Valves

Section 195.258 requires valves be installed at a location that is accessible to authorized employees and protected from damage or tampering. 49 CFR § 195.258(a). Valves must be installed on: (1) the suction end and discharge end of a pump station to permit isolation of the pump station equipment in an emergency, (2) each line entering or leaving a breakout storage tank area to permit isolation of the tank area from other

facilities, (3) each mainline at locations along the pipeline system that will minimize damage or pollution from accidental hazardous liquid discharge as appropriate for the terrain, (4) each lateral takeoff from a trunk line to permit shutting off the lateral without interrupting the flow in the trunk line, (5) each side of a water crossing over 100 feet wide, unless PHMSA finds that valves are not justified, and (6) each side of a reservoir holding water for human consumption. 49 CFR §§ 195.260(a)-(f).

The Commission seeks comments on the location of valves on hazardous liquid public utility pipelines, particularly as it pertains the third requirement above.

See 49 CFR § 195.260(c). Interested parties should also discuss valve spacing for highly volatile liquid⁴ pipelines as well as the timeframe needed for installation of additional valves.

⁴ A highly volatile liquid is a “hazardous liquid which will form a vapor cloud when released to the atmosphere and which has a vapor pressure exceeding 276 kPa (40 psia) at 37.8 °C (100 °F).” 49 CFR § 195.2.

B. Operation and Maintenance

Below, the Commission provides an overview of the current minimum operation and maintenance standards and highlights the following areas for comment: pipeline conversion, construction compliance, pressure testing and maximum operating pressure, line markers, inspection of pipeline rights-of-ways, emergency flow restricting devices, leak detection, and corrosion control and cathodic protection.

We note that comments are not limited to these areas. Interested parties may comment on other provisions of Part 195 relating to the operation and maintenance of hazardous liquid public utilities that they believe the Commission should consider strengthening through this rulemaking.

1. Pipeline Conversion

Section 195.5 provides a procedure for converting pipelines not used in service under Part 195 to service subject to Part 195. Specifically, “a steel pipeline previously used in service not subject to this part qualifies for use under this part if the operator prepares and follows a written procedure.” 49 CFR § 195.5(a). The procedure must include: (1) a review of the design, construction, operation, and maintenance history of the pipeline, including appropriate tests where sufficient historical record are not available; (2) visual inspection of the pipeline right-of-way, all aboveground pipeline segments, and appropriately selected underground pipeline segments for physical defects and operating conditions that could reasonably be expected to impart the strength or tightness of the pipeline; (3) correction of all known defects in accordance with Part 195, and (4) testing to substantiate the maximum operating pressure under Section 195.406. 49 CFR §§ 195.5(a)(1)-(4). Further, a pipeline that qualifies under Section 195.5 must comply with the corrosion control requirements of Part 195 twelve months after it is placed into service. 49 CFR § 195.5(b).

The Commission seeks comment on the procedure used to bring hazardous liquid public utility pipelines into compliance with the requirements of Part 195 and whether

enhancements are needed. The Commission further seeks comment on a repair schedule to comply with Part 195, taking into account items requiring immediate correction.

2. Construction Compliance

Section 195.401(c) provides that certain pipelines constructed after specified dates may not be operated, unless constructed in accordance with Part 195. 49 CFR § 195.401(c). These pipelines include: (1) interstate pipelines that transport hazardous liquids, other than low-stress pipelines, on which construction began after March 31, 1970; (2) interstate offshore gathering lines that transport hazardous liquids, on which construction began after July 31, 1977; (3) intrastate pipelines that transport hazardous liquids, on which construction began after October 20, 1985; and (4) low-stress pipelines on which construction began after August 10, 1994. 49 CFR §§ 195.401(c)(1)-(5).

The Commission seeks comment regarding the operation and maintenance of hazardous liquid public utility pipelines constructed prior to the dates contained in Section 195.401(c), including additional cathodic protection requirements for bare steel pipelines and other vintage pipelines.

3. Pressure Testing and Maximum Operating Pressure

Subpart E sets forth minimum requirements for the pressure testing of steel pipelines. 49 CFR § 195.300. Under Section 195.302, a pipeline may not be operated, unless it has been pressure tested without leakage and no segment of a pipeline that has been replaced, relocated, or otherwise changed may be returned to service until it has been pressure tested without leakage. 49 CFR § 195.302(a). The following hazardous liquid pipelines may be operated without pressure testing, if the maximum operating pressure is established under Section 195.406(a)(5), discussed below: interstate pipelines constructed before January 8, 1971, interstate offshore gathering lines constructed before August 1, 1977, intrastate pipelines constructed before October 21, 1985, and low-stress pipelines constructed before August 11, 1994, that transport highly volatile liquids.

49 CFR §§ 195.302(b)(1). In addition, any low-stress pipeline constructed before August 11, 1994, that does not transport highly volatile liquids need not be pressure tested. 49 CFR § 195.302(b)(3). Further, pressure testing is not required for segments of older hazardous liquid pipelines subject to the risk-based criteria program under Section 195.303 that do not need to be tested based on that program. 49 CFR § 195.302(b)(4).

Section 195.303 provides that, for older hazardous liquid pipelines, operators may use a risk-based criteria program as an alternative to the pressure testing set forth in Section 195.302. 49 CFR § 195.303(a). Operators must assign a risk classification for each pipeline segment using a location indicator, product and volume indicators, and a probability of failure indicator. 49 CFR §§ 195.303(a)(1)-(3). The program provides for pressure testing for pipe segments constructed of electric resistance-welded pipe and lapwelded pipe manufactured before 1970 that are susceptible to longitudinal seam failures based on risk classification. 49 CFR § 195.303(c). For other segments, magnetic flux leakage or ultrasonic internal inspection surveys may be used. 49 CFR § 195.303(c).

Section 195.310 requires that a record be made of each pressure test and that the record of the latest test be retained as long as the facility is in use. 49 CFR § 195.310(a). Each record must include the following: (1) pressure recording charts; (2) test instrument calibration data; (3) the name of the operator, person responsible for making the test, and test company used; (4) the date and time of the test; (5) the minimum test pressure; (6) the test medium; (7) a description of the facility tested and apparatus; (8) an explanation of pressure discontinuities, (9) a profile showing elevation and test sites where elevation differences are greater than 100 feet in a section; and (10) the temperature of the test medium during the test period. 49 CFR §§ 195.310(b)(1)-(10).

Section 195.406 sets the maximum operating pressures, except for surge pressures and other variations from normal operations. 49 CFR § 195.406(a). Under Section 195.406, no operator may operate a pipeline at a pressure that exceeds: (1) the internal

design pressure of the pipe under Section 195.106;⁵ (2) the design pressure of any other component of the pipeline; (3) 80 percent of the test pressure for any part of the pipeline pressure tested under Subpart E; (4) 80 percent of the factory test pressure for any individually installed component that is exempt from pressure testing; and (5) for pipelines that may be operated without pressure testing under Section 195.302(b)(1), 80 percent of the test pressure or highest operating pressure to which the pipeline was subjected for four or more continuous hours that can be shown by recording charts or logs made when the test was conducted. 49 CFR § 195.406(a).

The Commission seeks comment on pressure testing requirements for all public utility pipelines transporting hazardous liquids, including the frequency at which pressure testing should be conducted. The Commission also seeks comment on pressure testing record requirements and record requirements for maximum operating pressure. Interested parties should discuss industry standards as well as best practices.

4. Line Markers

Section 195.410 requires that operators place and maintain line markers over buried pipeline in certain areas. 49 CFR § 195.410(a). Line markers must be located at

⁵ Section 195.106 sets forth a formula with which to determine the internal design pressure for the pipe in a pipeline, including the yield strength and seam joint factor and their respective standards. See 49 CFR § 195.106.

public road crossings, railroad crossings, and “in sufficient numbers along the remainder of each buried line so that its location is accurately known.” 49 CFR § 195.140(a)(1). Line markers must also be located where pipeline is above ground in areas accessible to the public. 49 CFR § 195.410(c). Line markers are not required for pipelines located offshore or at crossings under waterways, or in heavily developed urban areas, such as downtown business centers, where markers are impractical and where the local government maintains current substructure records. 49 CFR § 195.410(b)(2). Line markers must state “Warning,” “Caution,” or “Danger” followed by “Petroleum (or the name of the hazardous liquid transported) Pipeline.” 49 CFR § 195.410(a)(2)(i). This statement must be printed on a background of sharply contrasting color and be at least one inch high with a stroke of one-quarter inch. 49 CFR § 195.410(a)(2)(i). Line markers must also state the name of the operator and a complete telephone number for the operator. 49 CFR § 195.410(a)(2)(ii).

The Commission seeks comment regarding the adequacy of line marker requirements for hazardous liquid public utilities. We also seek comment on the use of markers for assets attached to mains, such as valves.

5. Inspections of Pipeline Right-of-Ways

Pursuant to Section 195.412, operators “shall, at intervals not exceeding 3 weeks, but at least 26 times each calendar year, inspect the surface conditions on or adjacent to each pipeline right-of-way.” 49 CFR § 195.412(a). The inspection may be conducted by walking, driving, flying, or other appropriate means. 49 CFR § 195.412(a). In addition, operators must inspect crossings under a navigable waterway, with the exception offshore pipelines, at least once every 5 years. 49 CFR § 195.412(b).

The Commission seeks comment on the appropriate method of inspection and the frequency at which inspections should occur beyond the requirements of Part 195.

6. Emergency Flow Restricting Devices

Emergency flow restricting devices (EFRD) refer to either check valves, which permit flow in one direction and contain a mechanism to automatically prevent flow in the other direction, or remote-control valves, which are operated from a remote location and linked to a pipeline control center by fiber optics, microwave, telephone lines, or satellite. 49 CFR § 195.450. EFRDs are to be installed as a preventative measure for pipelines that could affect high consequence areas, which include commercially navigable waterways, high population areas,⁶ other populated areas,⁷ and unusually sensitive areas.⁸ 49 CFR §§ 195.450, 195.452(i)(1). Pursuant to Section 195.452(i)(4), “If an operator determines that an EFRD is needed on a pipeline segment to protect a high consequence area in the event of a hazardous liquid pipeline release, an operator must install the EFRD.” 49 CFR § 195.452(i)(4).

The Commission seeks comment regarding installation of remote-control valves on hazardous liquid public utility pipelines, including valve location, the number of valves and valve spacing in high consequence areas.

7. Leak Detection

Operators are required to have a means to detect leaks on pipeline systems. 49 CFR § 195.452(i)(3). For pipelines that could affect high consequence areas, operators must evaluate their leak detection means and modify those means to protect the high consequence area. 49 CFR § 195.452(i)(3). In doing so, operators consider the length and size of the pipeline, type of product carried, proximity to the high consequence area, swiftness of the leak detection, location of the nearest response personnel, leak history, and risk assessment results. 49 CFR § 195.452(i)(3).

⁶ A high population area is “an urbanized area, as defined and delineated by the Census Bureau, that contains 50,000 or more people and has a population density of at least 1,000 people per square mile.” 49 CFR § 195.450.

⁷ A populated area is “a place, as defined and delineated by the Census Bureau, that contains a concentrated population, such as an incorporated or unincorporated city, town, village, or other designated residential or commercial area.” 49 CFR § 195.450.

⁸ An unusually sensitive area is “a drinking water or ecological resource area that is unusually sensitive to environmental damage from a hazardous liquid pipeline release.” 49 CFR § 195.6.

The Commission seeks comment on the leak survey requirements for hazardous liquid public utility pipelines as well as a discussion of whether minimum threshold requirements can be established for leak detection systems in all pipelines and what leak detection technologies are appropriate for use.

8. Corrosion Control and Cathodic Protection

Subpart H of Part 195 addresses corrosion control and cathodic protection for steel pipelines. 49 CFR § 195.551. With regard to external corrosion, Section 195.557 provides that buried or submerged pipelines must have an external coating for corrosion control if the pipeline is constructed, relocated, replaced, or otherwise changed after the Section 195.401(c) dates, or converted under Section 195.5 and has a coating that meets Section 195.559 requirements before it is placed in service or is a segment that is relocated, replaced, or substantially altered. 49 CFR § 195.557(a)-(b). Under Section 195.559, coatings for external corrosion control must be designed to mitigate corrosion, allow sufficient adhesion to metal surfaces to prevent the migration of moisture, resist cracking, resist damage due to handling and soil stress, support supplemental cathodic protection, and provide low moisture absorption and high electrical resistance, if the coating is of an insulating type. 49 CFR § 195.559(a)(f).

Similarly, Section 195.563 provides that buried or submerged pipelines must have cathodic protection (CP) if the pipeline is constructed, relocated, replaced, or changed after the dates in Section 195.401(c) or converted under Section 195.5 and has cathodic protection that meets Section 195.571 requirements before it is placed in service or is a segment that is relocated, replaced, or substantially altered. 49 CFR § 195.563(a)-(b). Section 195.563 also requires that all other buried or submerged pipelines that have an effective external coating must also have cathodic protection, noting that an external coating is not effective if the current required to cathodically protect the pipeline is substantially the same as if the pipeline were bare. 49 CFR §§ 195.563(c), n. 1. Additionally, bare pipelines, breakout tank areas, and buried pumping stations must have

cathodic protection in places where prior regulations required cathodic protection as part of electrical inspections. 49 CFR § 195.563(d). Unprotected pipe must be cathodically protected if required by Section 195.573(b), discussed below. 49 CFR § 195.563(e).

Section 195.573 sets forth standards for determining whether cathodic protection is adequate. 49 CFR § 195.573(a). For protected pipelines, tests must be conducted at least once a year with intervals not exceeding 15 months. 49 CFR § 195.573(a)(1). Where testing once a year is not practical for separately protected short sections of bare or ineffectively coated pipelines, tests should be conducted at least once every three years with intervals not exceeding 39 months. 49 CFR § 195.573(a)(1). Additionally, within two years after installing cathodic protection, the circumstances in which a close-interval survey (CIS) is practicable and necessary to comply with NACE SP0169-2007, *Standard Practice, Control of Erosion on Underground or Submerged Metallic Piping Systems*, NACE International (Mar. 15, 2007), should be determined.⁹ 49 CFR § 195.573(a)(2). For unprotected pipelines, reevaluation for cathodic protection in areas in which active corrosion is found should occur at least once every three years with intervals not exceeding 39 months. 49 CFR § 195.573(b)(2).

The internal effect of hazardous liquids being transported on the pipeline must also be investigated and mitigated. 49 CFR § 195.579(a). Section 195.579 requires that

⁹ As referenced in Part 195, Paragraph 10.1.1.3 of SP0196, provides:

When practicable and determined necessary by sound engineering practice, a detailed (close-interval) potential survey should be conducted to:

- (a) assess the effectiveness of the CP system;
- (b) provide base line operating data;
- (c) locate areas of inadequate protection levels;
- (d) identify locations likely to be adversely affected by construction, stray currents, or other unusual environmental conditions; or
- (e) select areas to be monitored periodically.

NACE SP0169-2007, *Standard Practice, Control of Erosion on Underground or Submerged Metallic Piping Systems*, NACE International (Mar. 15, 2007); see also 49 CFR 195.3(g)(1).

adequate steps must be taken to mitigate internal corrosion, including the use of inhibitors to protect the entire part of the pipeline system that they are designed to protect, the use of coupons or other monitoring equipment to determine the effectiveness of the inhibitors, and the examination of the coupons or other monitoring equipment at least twice a year with intervals not exceeding 7.5 months. 49 CFR § 195.579(b)(1)-(3). Pipe must be inspected for internal corrosion upon removing it from a pipeline; if there is internal corrosion requiring corrective action under Section 195.585, discussed below, a circumferential and longitudinal inspection must be undertaken to determine whether additional corrosion exists near the removed segment. 49 CFR § 195.579(c).

Operators conducting in-line inspections must comply with API Standard 1163, *In-Line Inspection Systems Qualification*, American Petroleum Institute, 2nd ed. (April 2013), as well as NACE SP0102-2010, *Standard Practice, Inline Inspection of Pipelines*, NACE International (Mar. 13, 2010). 49 CFR § 195.591; *see also* 49 CFR 195.3(g)(3). In-line inspection refers to the inspection of a pipeline from the interior using an in-line inspection tool, or a device that uses non-destructive techniques to inspect the pipeline; in-line inspection is also known as “intelligent or smart pigging.” 49 CFR § 195.2.

In terms of corrective action for corrosion, Section 195.585 provides that, if pipe is so corroded that the remaining wall thickness is less than required for the maximum operation pressure of the pipelines, the pipe must be replaced. 49 CFR § 195.585(a). However, replacing the pipe can be avoided by reducing the maximum operating pressure commensurate with the strength of the pipe needed based on the actual wall thickness or by repairing the pipe using a reliable method shown by engineering tests and analyses to permanently restore the pipe. 49 CFR § 195.585(a)(1)-(2).

The Commission seeks comment on the measures necessary to protect hazardous liquid public utility pipelines against both external and internal corrosion. In addition, the Commission seeks comment on what constitutes adequate cathodic protection. Interested parties should discuss tests to assess the adequacy of cathodic protection,

including close-interval surveys, and the frequency at which tests should be conducted. Interested parties should also discuss the use of hydrostatic testing, or pipeline pigging, as it pertains to corrosion control and cathodic protection. Moreover, interested parties should discuss the use of in-line inspection and the appropriate frequency of in-line inspection. Comments on these areas should identify industry standards and implementation timeframe for an appropriate inspection program, as well as best practices.

C. Additional Subject Areas for Public Comment

The Commission seeks public comment on the following additional areas for potential regulation:

1. Utility interactions with local government officials, including but not limited to such topics as emergency planning and emergency response coordination, periodic drills with utility/municipal coordination.
2. Requiring periodic public awareness meetings with municipal officials and the public.
3. Pennsylvania specific enhancements to public utility's public awareness programs pursuant to 49 CFR § 195.440 and API Recommended Practice 1162.
4. Pennsylvania specific enhancements for operator qualification.
5. Enhancing transparency while protecting confidential infrastructure security information.
6. Regulation of construction techniques such as horizontal directional drilling.
7. Accident and incident reporting criteria, notification criteria for reporting incidents or unusual events to local emergency officials.
8. Advance notification and/or Commission preapproval of major construction activities.
9. Odorant utilization.
10. Geophysical testing and baselining.

11. Protection of public and private water wells and supplies.
12. Land agents and eminent domain (see 52 Pa.Code § 57.91).
13. Background investigations of employees and contractors.
14. Integration of new regulations on existing facilities.

CONCLUSION

The Commission will consider extensively the safety standards applicable to hazardous liquid public utilities. The time is ripe to move forward with specific proposals to enhance pipeline safety in Pennsylvania. We must proceed expeditiously, but cautiously, acknowledging that our actions must be compatible with the federal pipeline safety laws at 49 CFR Part 195. Significant improvements to hazardous liquid public utility safety standards can be accomplished by building upon the federal pipeline safety laws. Through this order we invite comment on various issues to carefully begin the process of crafting new rules aimed at improving the safety of construction, operation, maintenance, and other functions of hazardous liquid public utilities.

Interested parties should comment on all matters discussed in this Order and on any other related matter they believe we should address. We urge interested parties to submit, along with their comments, any available data to support their position. This includes cost data, along with data for any alternatives proposed. Interested parties may also submit specific regulations for consideration by the Commission.

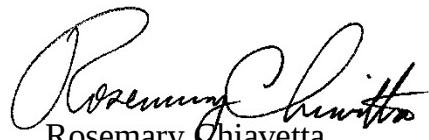
Due to the comprehensive nature of this proposed rulemaking and the complexity of the subject matter, interested parties will be given 60 days from the date of publication in the *Pennsylvania Bulletin* to submit comments. The Commission is nonetheless committed to moving this rulemaking forward in a timely fashion.

Upon careful review and consideration of the comments received in response to this Advanced Notice of Proposed Rulemaking, the Commission intends to issue a formal Notice of Proposed Rulemaking with proposed regulations; **THEREFORE**,

IT IS ORDERED:

1. That the Law Bureau shall duly deposit this Order with the Legislative Reference Bureau to be published in the *Pennsylvania Bulletin*.
2. That written comments referencing Docket No. L-2019- 3010267 be submitted within 60 days of publication in the *Pennsylvania Bulletin* to the Pennsylvania Public Utility Commission, Attn: Secretary, 400 North Street, Harrisburg, PA 17120. Comments may also be filed electronically through the Commission's e-File System.
3. That this Order proposing to revise the regulations appearing in Title 52 of the Pennsylvania Code Chapter 59 (relating to Safety), be served on all jurisdictional hazardous liquid public utilities, the Bureau of Investigation and Enforcement, the Office of Consumer Advocate, and the Office of Small Business Advocate.
4. That a copy of this Order shall be posted on the Commission's website, www.pa.puc.gov, at the web page for *Pipeline Safety*.
5. The contact persons for this matter are Colin W. Scott, (717) 787-5949, colinscott@pa.gov; Hayley E. Dunn, (717) 214-9594, haydunn@pa.gov; and Erin N. Tate, (717) 214-1956, etate@pa.gov in the Law Bureau.

BY THE COMMISSION



Rosemary Chiavetta
Secretary

(SEAL)

ORDER ADOPTED: June 13, 2019

ORDER ENTERED: June 13, 2019